UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,003	09/16/2003	Jerry S. Brown	84658	3910

7590 11/26/2004

Matthew J. Bussan, Esq.
NSWCDD (XDC1)
17320 Dahlgren Road
Dahlgren, VA 22448-5100

EXAMINER	
ANTHONY, JOSEPH DAVID	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/664,003	BROWN ET AL.	
	Examiner	Art Unit	
	Joseph D. Anthony	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *1-15 and 19-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-13 and 20, drawn to a microemulsion composition, classified in class 252, subclass 186.26 and class 516/53+.

II. Claims 14-15, drawn to a kit/system for decontamination, classified in class 134, subclass 1+.

III. Claims 16-18, drawn to a process for decontamination a contaminated surface, classified in class 588, subclass 200.

IV. Claims 19, drawn to a decontaminated surface, classified anywhere the type of article that is decontaminated is classified.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used a polymerization initiators.

3. Inventions I and II are related as mutually exclusive inventions in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product and the inventions are patentably distinct. In the instant case, the intermediate product is

deemed to be useful as polymerization initiators and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. Inventions (I, II, III) and IV are clearly patentable distinct since the nature of the decontaminated surface product of Invention IV, is total independent from the decontamination composition used and from the process and system/kit of decontainimation used.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Scott Boalick (Reg. # 42,337) on 11/22/04 a provisional election was made without traverse to prosecute the invention of Group III, claims 16-18. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 1-15 and 19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 16-18 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process for decontaminating a contaminated surface, comprising the steps of providing a microemulsion composition having a microemulsion, a solid source of peroxycarboxylic acid ***dissolved*** in the microemulsion and a germinant in combination with the solid peroxycarboxylic acid within the microemulsion, does not reasonably provide enablement for a process for decontaminating a contaminated surface, comprising the steps of providing a microemulsion composition having a microemulsion, a solid source of peroxycarboxylic acid ***suspended*** in the microemulsion and a germinant in combination with the solid peroxycarboxylic acid within the microemulsion, see page 1, lines 9-15, page 5, lines 9-10, and non-elected independent claims 1 and 12. The specification does not enable

any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baugh et al. U.S. Patent Number 6,656,919 in view of Brown U.S. Patent Number 6,369,288 (for claims 16 and 18) **or** in view of Roesler et al. U.S. Patent Number 5,462,692 (for claim 17).

Baugh et al teach a method for the disinfection and sterilization of material and surfaces contaminated with one or more members selected from the group consisting of bacteria and bacterial spores (e.g. chemical and biological warfare agent decontaminating solutions are taught), comprising the steps of: (a) providing a biocidal fluid containing a mixture of effective amounts of a germinant and a germicide; and (b) contacting the material and surfaces contaminated with one or more members selected from the group consisting of bacteria and bacterial spores, with the biocidal fluid of step (a) for a time sufficient for disinfecting and sterilizing said material. The invention also provides a sterilizing

composition suitable for killing and rendering spores lifeless comprising: (a) an effective amount of a germinating agent; (b) an effective amount of a germicide, see the abstract and column 1, lines 38-63. Disclosed effective chemical **germinants** are dipicolinic acid, glucose, adenine, L-alanine, calcium dipicolinate and various inorganic anions such as but not limited to chloride and borate and cations such as but not limited to Na.sup.+, Ca.sup.++, and Mg.sup.++ as well as mixtures thereof., see column 7, lines 24-38 and column 8, lines 13-22. Disclosed effective **germicides** can be selected from oxidizing agents which can be either inorganic or organic oxidizing such as hydrogen peroxide and benzoyl peroxide, see column 8, lines 26-37. Baugh et al's compositions advantageous also contain surfactants which are preferably non-ionic surfactant. Amine oxides are such disclosed non-ionic surfactants, see column 10, line 60 to column 11, line 11. Baught et al differs from applicant's claimed invention in the following ways: 1) there is no direct disclosure to a composition in the form of a microemulsion, and 2) there is no direct disclosure to applicant's preferred oxidizing agent of peracetyl borate of claim 17.

Brown teaches a method for using a chemical and biological warfare agent decontaminating solution having a peroxygen compound and bleach activator. The peroxygen compound and bleach activator are mixed in a surfactant system to generate a peroxycarboylic acid in-situ to detoxify warfare agents, see the abstract. The surfactant system is preferably in the form of a microemulsion comprising one or more surfactants, water and hydrocarbon

compound. Buffers, and other known microemulsion additives may be added, as desired. Surfactants used within the microemulsion preferably include two amine oxide surfactants. The amine oxide surfactants may include, for example, any N-alkyldimethylamine or N-dialkylmethylamine oxide, having C.sub.10, C.sub.12, C.sub.14, C.sub.16 alkyls or mixtures of these. Exemplary surfactants include didecyl methylamine oxide manufactured by Albemarle Chemical of Baton Rouge, La. and sold under the tradename "Damox 1010" (76%), and decyl dimethylamine oxide manufactured by Lonza Chemical of Fair Lawn, N.J., and sold under the tradename "Barlox 10S" (30%). Preferred surfactant systems include amine oxides.

Roesler et al teach stable, solid acetyl peroxyborate compounds which are active oxygen-containing compounds derived from acetic acid and boron-oxygen compounds. The compounds of the invention have a peracetic acid content which can be liberated instantly and directly in water with only minor formation of hydrogen peroxide. The acetyl peroxyborates of the invention are useful in washing, bleaching and cleaning agent and disinfectant applications and as oxidizing agents in organic synthesis.

It would have been obvious to one having ordinary skill in the art to use Brown's disclosure to microemulsion containing amine-oxide surfactant blends as highly effective surfactant systems for germicidal oxidizing agents used in chemical and biological warfare agent decontaminating solutions as strong motivation to actually use

such microemulsion systems in the chemical and biological warfare agent decontaminating solutions as disclosed by Baugh et al..

Likewise it would have been obvious to one having ordinary skill in the art to use Roesler et al teaching to the big advantageous of using solid acetyl peroxyborate compounds instead of known peracid/hydrogen peroxide aqueous solutions because solid acetyl peroxyborate compounds only release minor amounts of hydrogen peroxide which can cause off gassing problems among others, as the motivation to actually use solid acetyl peroxyborate as the oxidizing agent in Baugh et al's invention.

Prior-Art Cited But Not Applied

13. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. This examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 6:30 p.m. in the eastern time zone. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.

Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

11/23/04